

C-E-I-R

Institute for Advanced Technology

5272 River Road

Washington D. C. 20016

Phone: Area Code 301/652-2268

ADVANCED METHODS FOR PRODUCTION PLANNING AND SCHEDULING

**A THREE-DAY SEMINAR
APRIL 10-12 AND MAY 15-17
BARBIZON-PLAZA HOTEL
NEW YORK, NEW YORK**



The Planning and Scheduling Function

Production planning and scheduling objectives. Design and maintenance of basic files for bills of materials, operations routing and rate data, inventory balances, open and released make/order files, production and purchase status, etc. Exterior design of a "total" planning and scheduling system.

Parts Explosion and Netting

Techniques for exploding and netting parts requirements. Low level coding. Priority schemes for allocating surplus inventory. Numerical methods. Related explosion methods for cost pyramiding and to determine optimal product and resource mixes.

Set-Back and Set-Forward Scheduling

Calculation of set-forward and set-back schedules, critical path and slack analysis. Automatic generation of input data. Use of set-back scheduling technique in the parts explosion and netting function, in "order picking," and to generate machine and labor load projections.

The Instructor: Dr. Bernard Giffler is a senior consultant in the Applied Research and Management Sciences Division of C-E-I-R, Inc. He has been active in development of new techniques in production and inventory control since 1953. Before his association with C-E-I-R, Dr. Giffler served as adjunct associate professor in New York University's Department of Industrial Engineering and Operations Research, as a Manager of Management Science in the Data and Information Systems Division of the International Telephone and Telegraph Corporation, and as senior mathematician in IBM Corporation's Research and Advanced Systems Development Divisions. His published papers on production planning and scheduling have appeared in the Journals of the *Operations Research Society of America*, *The Institute for Management Science*, and in *Naval Research Logistics Quarterly*.

Detail Scheduling

The Scheduler II Program System.* Automatic generation and maintenance of scheduling input data. Production capacity restraints. Production capacity changes between shifts. Allowances for periodic maintenance. Dovetailing operations. Joint use of two or more facilities to perform operations. Machine loading disciplines.

PERT/CPM Computer Programs

Survey of currently available PERT/CPM Computer Programs. Principles of Operation, Preparation of data for machine computation. Analysis of computer program output. Strengths and weaknesses of the PERT/CPM Method. Sample problems.

The Scheduler II Program System

Principles of operation. Preparation of data for machine computation. Analysis of output data. Routine analysis of output data. Routine use of Scheduler II to monitor and control factory production. Real-time planning and scheduling. Sample problems.

*The Scheduler II Program System generates *detailed* production schedules; that is, schedules which not only specify when each operation is to be performed but also the specific facility which is to perform it.

Registration—Tuition, including course materials and luncheons, is \$195 for the first student and \$175 for others from the same organization. Checks for tuition should be made payable to C-E-I-R, Inc. Classes begin at 9:00 a.m. and end at 5:00 p.m.

Hotel Accommodations—

The seminar will be held at the Barbizon-Plaza Hotel, 106 Central Park South, New York, New York 10019. The Barbizon will hold a block of rooms for seminar participants at \$15 for single and \$22 for twin rooms until two weeks before the seminar. Hotel rooms are not included in the tuition but reservation cards are provided by IAT upon registration. Parking facilities are available.

Seminar Registration:

To register, fill in the post card registration form below, clip and mail. No postage is required. If payment is made in advance, make check payable to C-E-I-R, Inc.

Register me for April 10-12 ☐ May 15-17 ☐

NAME: _____

TITLE: _____

COMPANY: _____

ADDRESS: _____

_____ ZIP CODE: _____

PHONE: _____

Please Register This Additional Student:

NAME: _____

TITLE: _____

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Intended for both the line manager with production responsibility and staff data systems specialists concerned with incorporation of management science techniques into integrated computer-based production control systems. Describes new techniques for production planning and scheduling, which are largely designed for computer implementation. Data processing background is not required. Background in mathematics, however, is necessary for full understanding. Some topics covered are: the production planning and scheduling function, design and maintenance of data files, parts explosion and netting, determination of optimal product and resource mixes, set-back and set-forward scheduling, machine and labor load projection, detail scheduling, production monitoring and control. Tuition, including luncheons and course materials, is \$195 for the first student and \$175 for each additional student from the same organization.

Other Courses: The Institute for Advanced Technology program covers many subjects in the field of data processing and the management sciences. Among the seminars currently scheduled are:

- Multi-Programmed Operating Systems
- Business Systems Analysis
- Data Communications
- Advanced Mathematical Programming by Mr. E. Martin L. Beale
 - (1) Linear Programming
 - (2) Non-Linear Programming
- Time-Sharing Today
- Computer Operation Management
- Document Retrieval and Display Techniques

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